

# Non-price determinants of demand for tobacco products in SEE countries

**Olivera JOVANOVIĆ**

*Institute of Economic Sciences, Belgrade, Serbia*  
*olivera.jovanovic@ien.bg.ac.rs*

**Mihajlo DJUKIĆ**

*Institute of Economic Sciences, Belgrade, Serbia*  
*mihajlo.djukic@ien.bg.ac.rs*

**Jovan ZUBOVIĆ**

*Institute of Economic Sciences, Belgrade, Serbia*  
*jovan.zubovic@ien.bg.ac.rs*

**Abstract.** *Tobacco consumption imposes significant economic and health burdens on society. Tobacco control measures encompass price and non-price measures aimed to discourage consumption of tobacco products and reduce negative health outcomes. Although price measures, in the form of specifically designed tobacco tax policy, proved to be the most effective single tobacco control instrument, their effectiveness is maximized only if they are coupled with non-price measures (smoke-free air laws, marketing bans, education about harmful effects of tobacco, cessation support, etc.). This paper provides a theoretical and empirical rationale for applying the non-price measures in selected SEE countries – Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia. The performed analysis focuses not only on the current state in the application of the non-price measures at the regional level but on differences among the observed countries. Research results confirm gradual but slow progress in applying non-price measures of tobacco control in observed countries. There is a huge space for policy improvements in the area. Full implementation of the non-price measures, as outlined in the WHO MPOWER package, would result in lower tobacco consumption, while bringing significant health and economic benefits.*

**Keywords:** tobacco, cigarettes, demand, non-price measures, consumption, health economics, SEE countries

## Introduction

Non-price determinants of demand for tobacco products include measures created to dissimulate consumption of tobacco products without change in tobacco prices (excises or taxes). They have been developed in line with the

rationale assumption, confirmed in the abundant research literature, that demand for tobacco products, like the demand for any other product, does not (exclusively) depend on their price, but other factors such as cultural behavior patterns and trends, media, tradition, etc. In the specific case of tobacco control, consumers have been or still are, under aggressive marketing influence of the tobacco industry which tends to undermine overall consensus regarding harmful effects of tobacco, often putting consumption of tobacco products in the field of individual freedom (Friedman et al. 2015) and ignoring the problem of negative externalities.

Non-price measures aim at undermining the social acceptability of smoking, overcoming the problem of asymmetric information related to smoking initiation, consumption, cessation, and harmful effects that smoking, in general, produces to non-smokers and society. After global acceptance of the evidence on harmful effects of tobacco and robust research results obtained by Doll (1950) followed by many other scientists (Musk and De Klerk, 2003), non-price measures have been gradually incorporated into the legislative framework in majority of developed countries. Nowadays, non-price measures represent a significant part of tobacco control instruments across Europe. This issue has been neglected in the SEE countries. Relatively small number of papers have dealt with tobacco control issues in the SEE region. There have been some evidence on the effects of taxes (ex. Vladisavljevic et al. 2020; Gligoric et al. 2020; Gjika et al. 2020; Mugosa et al. 2020; Randjelovic and Bisic, 2018; Jovanovic, et al. 2018;) and illicit tobacco consumption (Mikulic and Buturac, 2020; Recher, 2020), whereas evidences on the effects of non-price measures have been largely missing.

This paper focuses on the European periphery, countries that are part of the SEE region, still not members of the European Union (EU)—Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, and Serbia. All of them are at different stages of the EU accession process, a process without specific deadlines. From the tobacco control aspect, it practically means that these 5 countries are not strictly forced to incorporate EU legislation in a short term. However, delay in accepting the EU policy agenda in the field of tobacco control might result in severe economic and health costs.

The aim of this paper is twofold. Firstly, it aims to analyze the current state of non-price tobacco control measures underlining the most important areas for policy improvement in the region. Secondly, it provides comparisons among selected SEE countries. Therefore, this research provide answers to the following questions:

DOI: 10.2478/9788366675261-045

- What is the current state of non-price tobacco control measures in selected SEE countries?
- Are there significant differences between the observed SEE countries?
- What improvements could be made in tobacco control given the research evidence and the EU tobacco control policy outcomes?

Along with the secondary data from available databases (WHO and Tobacco Control Scale), for the analysis we used primary data on tobacco consumption obtained through national surveys<sup>1</sup> - Survey on Tobacco Consumption in SEE countries (STC – SEE). The sample consisted of 7,006 respondents.

The first section provides an outline of the policy development in the field of tobacco control with a particular focus on the application of non-price tobacco control measures in the EU. In the second part of the paper, „state of the art“ and the most important research evidence related to analysing effects of non-price tobacco control measures is presented. In the third session, the focus is on the three crucial non-price control policies – marketing bans of tobacco products, informing population on the effects tobacco consumption, and cessation support to those willing to quit smoking. The fourth section concludes and provides practical recommendations for policy makers in the region.

### **Non-price tobacco control measures – historical perspective and current issues**

The first laws enacting control measures to inform the public about the harmfulness of cigarettes and ban their unhindered advertising in the USA were passed in 1965 - the Law on Labeling and Advertising (Congress, US. Federal, 1965) and in 1969 - the Law on public health and cigarette consumption (Congress, US Federal, 1970). In Europe, the first tobacco regulatory measures referred to control of production, sales, trade, and prices, were adopted to secure public revenues and protect tobacco producers and cigarette manufacturers, while policy makers did not tackle health aspects of consumption (Zubovic et al., 2020). The attitudes of the population towards the harmfulness of tobacco products were in line with

---

<sup>1</sup> Surveys were conducted within a project „Accelerating Progress on Tobacco Taxes in Low- and Middle-Income Countries“, funded by the Bloomberg Initiative to Reduce Tobacco Use. More data about the project could be found at: <http://tobaccotaxation.org/index.php>

scarce information available. To illustrate, every third consumer in Germany, and every fifth consumer of tobacco products in the Netherlands, considered that tobacco products have adverse effects on the health of smokers. About half of smokers in Europe were unaware of the health consequences both to themselves and their environment (Willemsen, 2018). The first country that introduced non-price tobacco control measures was Sweden, which banned the advertising of tobacco products by law adopted in 1969 (Palali, 2019). At that time, the governments of most European countries were reluctant to adopt any control measures. However, abundant scientific evidence and the pressure created by international and national organizations have influenced decision-makers attitudes towards tobacco products, and shortly thereafter national policies were reformed as well (Zubovic et al. 2020). Other countries followed Sweden in reforming their legislation towards more strict tobacco control. Italy, Norway and Sweden have suspended television advertising, Austria and Norway have banned sales to minors, while some countries (Canada, the United Kingdom and Italy) have initiated campaigns aimed at educating minors. The Netherlands was the last EU country to implement control policies in 1989. The reasons for that should be sought in the fact that the Netherlands was ranked second in terms of production and exports of cigarettes (Palali, 2019). Implementation of the three Action plans adopted in 1987, 1992, and 1997 respectively, brought significant improvements in reducing smoking prevalence. Smoking prevalence in 2001 was reduced by a third over thirty years of tobacco control measures implementation. However, non-price measures and smoking denormalization policies failed to result in a more significant reduction of the prevalence among youth. In addition, the prevalence gap between countries was large, partly due to the strong influence of the tobacco industry which dominated policy making arena in most of the countries (Yach and Bettcher, 2000). European Strategy for Tobacco Control (WHO, 2002) has been developed as a policy response to the contemporary tobacco control challenges reflecting political commitments to improve public health and reduce adverse effects of tobacco consumption in Europe<sup>2</sup>.

Among the measures aimed to reduce demand for tobacco products, five out of six are non-price measures:

---

<sup>2</sup> In the period of adoption of the Strategy (2002), European region tobacco products were responsible for 1.2 million deaths (14% of all deaths), and it was estimated that they will cause 2 million deaths (20% of all deaths) each year by 2020.

**Smoke-free environment.** Strengthening the awareness of the population about the harmful effects of cigarette consumption is very important in order to protect the population of non-consumers of – second-hand smokers. Awareness-raising activities and support for further control measures should be targeted at both non-smokers and smokers.

**Advertising, promotions, and sponsorships.** An increasing number of empirical studies confirm that bans on advertising, promotion of tobacco products, and sponsorships of the tobacco industry are related to the reduction of the social acceptability of smoking.

**Information, training, and raising public awareness.** Education programs are also among the proven effective methods of raising the political acceptability of control policy measures. Without proper training of health care staff, there is a risk that control policies will be diluted by carefully designed tobacco industry tactics. Non-governmental organizations, associations and other organizations and programs representing a link that connects the health sector with other segments of society also play an important role in this process. The role of the civil sector is to advocate for policy change and policy making in line with research evidence and interest of the society. Education is especially important for children, youth and vulnerable groups, which are specific groups that are more difficult to inform and explain to them all the negative effects of tobacco consumption.

**Cessation.** Systematically designed counseling, support, and withdrawal therapies (e.g., nicotine replacement therapy) are also important tools for reducing prevalence. Special attention is paid to the financial resources that need to be allocated to successfully implement such support mechanisms that have been empirically proven to be effective.

**Controlling the production and informing consumers.** The strategy envisages a precise definition of all information sent to consumers, from warnings about harmful effects and risks to the prohibition of sending confusing and inaccurate messages that can lead to the conclusion that certain products are not harmful. Such prohibitions refer to the previous practice that certain products contain fewer negative ingredients, or are less harmful to health.

Gilbert and Cornuz (2003) outline cost-effective interventions to reduce death and illness related tobacco consumption. Four interventions refer to non-price measures, while the revenues collected from the increased excises should be used to support the rest. The best possible results could be achieved through the combined application of each of the

policy recommendations:

- 1) Increase excises on all tobacco products, which is the single most effective means of tobacco control.
- 2) Educate population about tobacco-related health risks.
- 3) Enhance smoking restrictions at workplaces and public spaces to protect nonsmokers, encourage smokers to quit, and help denormalize smoking.
- 4) Enhance bans on the advertising and promotion of tobacco use. Efforts must be comprehensive to avoid re-channeling by the tobacco industry.
- 5) Widen the availability of effective cessation therapies. These should be provided at low cost or free of charge for lower-income smokers if possible.

Current tobacco control regulation is mostly based on WHO Framework Convention on Tobacco Control (FCTC) entered into force in 2005. Article 4 of the FCTC provides guidance on raising public awareness and developing multisectoral and coordinated action in the field of tobacco control including international cooperation and participation of the civil society. By implementing appropriate tobacco control policies through a legislative and institutional framework in line with the WHO Framework Convention on Tobacco Control, countries are supposed to restrict the marketing of the tobacco industry. The implementation of the World Health Organization Framework Convention on Tobacco Control, Article 13, obliges the signatories to apply a comprehensive ban on advertising, promotion, or sponsorship. If they are limited in such implementation by constitutional principles, the signatories of the Framework Convention apply somewhat different forms of control and prohibition of industrial communication strategies of tobacco products. For the EU member countries, the strategic framework also involves other important systemic documents including Directives, recommendations, reports, and information campaigns such as:

- The Tobacco Products Directive (2014/40/EU) entered into force on 19 May 2014 and regulates governing the manufacture, presentation, and sale of tobacco and related products.
- Tobacco Advertising Directive (2003/33/EC) refers to the advertising and sponsorship of tobacco products
- Report on the implementation of the Council Recommendation of 30 November 2009 on Smoke-free Environments (2009/C 296/02)
- Audio-visual Media Services Directive (2010/13/EU)

- Council Recommendation (2003/54/EC) on the prevention of smoking and on initiatives to improve tobacco control

Given such a comprehensive regulation that requires coordinated work of different stakeholders at both national and global level, monitoring and evaluation of the effectiveness of tobacco control policy is a necessary phase of the policy cycle. The tobacco control scale is a specific monitoring and research tool that has been developed to provide comparable evidence on the state of implementation of tobacco control policies in Europe (Jossens and Raw, 2006). To achieve that, the 30 countries are ranked by their total score of a maximum possible 100. The scale allocates points to each policy: price 30, smoke-free public places 22, expenditure on public information campaigns 15, comprehensive advertising bans 13, large health warnings 10, cessation support (treatment) 10. The tobacco control scale has been widely used to assess the effects of the implementation of control policies on various socio-economic and health outcomes (Feliu et al. 2020). Among the observed countries, the tobacco control scale covered non-price measures for Serbia only. Serbia is ranked 33rd out of 36 countries, which is a significant decline comparing to 2016. Although ranked 6th per criteria - cigarette price, Serbia recorded weak ratings for other (non-price) criteria such as interference of tobacco industry, cessation support, tobacco control budget, health warnings, etc. (Jossens et al. 2020).

Evaluations of different tobacco control policies have been conducted quite often, ordered by either tobacco control institutions or individual researchers in search for evidence on the most effective policies to tackle existing problems. Gilbert and Cornuz (2003) in the paper entitled „*Which are the most cost-effective interventions for tobacco control*“ proved cost-effectiveness of each of the analyzed tobacco control policies. Vardavas et al. (2018) evaluated the European Union (EU) Tobacco Products Directive providing evidence for innovation of the existing measures. Although stressing the price as the most effective single one, they found that application of all measures is likely to have synergetic effects. Leao et al. (2020) assessed the cost-effectiveness of five tobacco control policies (non-school bans, including bans on sales to minors, bans on smoking in public places, bans on advertising at points-of-sale, school smoke-free bans, and school education programs), implemented in 2016 in Finland, Ireland, the Netherlands, Belgium, Germany, Italy, and Portugal. They found that all five policies were highly cost-effective in line with WHO thresholds for public health interventions.

As per research findings, large-scale interventions appeared to be highly cost-effective due to their low cost per person.

### **Literature review**

After a long-lasting policy battle and thousands of research evidence facts related to the adverse effects of tobacco consumption do not have serious opponents among the research community. Numerous research studies conducted worldwide and among countries with different income levels provided us with indisputable evidence that the marketing of tobacco products and their consumption are causally linked. Therefore, a comprehensive ban on tobacco industry marketing activities proved to be very effective in reducing the consumption of tobacco products (NCI and WHO, 2016). Imposing a ban does not produce any costs in terms of implementation, apart from those indirect, arising from lower fiscal revenues due to lower consumption<sup>3</sup>. However, the positive effects of lower consumption are, by far, surpassing the costs. It is a similar case with other non-price policies – solving the information asymmetry problem and providing cessation support. Their costs are negligible if compared to significant benefits related to their implementation. However, there are still many open questions that need to be answered paving the way towards a tobacco-free world such as the most effective non-price tobacco control policies, policies that should be prioritized, and technical aspects of the policy implementation. In this section, it will be presented research findings related to three types of non-price determinants of demand for tobacco, relevant for developing effective tobacco control policies.

#### *Ban on the marketing of tobacco products*

The first econometric study on the impact of advertising on tobacco use was conducted in the United States. Hamilton (1972) estimated the consumption of cigarettes and its change due to the implementation of the law banning the advertising of tobacco products to preserve the health of the individual but also the public health. The result was contrary to expectations because the 1971 ban, in addition to advertising tobacco products, also eliminated anti-smoking advertising and thus affected public awareness of the harmful effects of tobacco products.

Lovato et al. (2003) developed a detailed review of the literature on the impact of advertising and promotion of tobacco products on

---

<sup>3</sup> Other factors being constant



adolescent behaviour. Not only the behaviour of adolescents consuming tobacco products was observed, but also the behaviour of non-smokers since the initial hypothesis assumed that tobacco marketing significantly shaped the future smoking habits of current non-smoking adolescents. The target population included adult and younger adolescents. The activities such as advertising on national television or radio, newspapers, billboards or posters including the promotion of tobacco products, free distribution of pieces of clothing (T-shirts, caps) with the logo of the manufacturer or brand and similar were analysed. A significant number of published longitudinal studies that applied different methodologies were reviewed. The total population of non-smoking adolescents included in the study was over 12,000. The study measured their exposure to promotional or marketing activities of the industry. The most important finding was that both marketing activities – advertising on media and promotion of tobacco products using free samples, increase the initiation probability of non-smoking adolescents. At the same time, the respondents were likely to change their behaviour and attitudes towards smoking and were inclined to experiment and try some of the tobacco products more than before exposure to marketing.

Saffer and Chaloupka (2000) conducted an extensive study on the effects of comprehensive and partial bans on reducing cigarette consumption. The results showed that a partial ban on advertising has a smaller impact on reducing consumption if compared to a comprehensive ban. Blecher (2008) followed up on this study to observe the differences in the effects of the advertising ban between low- and middle-income countries and high-income countries. He confirmed that comprehensive bans had a significantly greater and more significant impact on the decline in consumption of tobacco products than when they were applied separately or partially in low- and middle-income countries.

Papaleontiou and others (2020) tested the hypothesis on the impact of advertising of classic and electronic cigarettes on the behaviour of young (non) smokers. Using data from the National Tobacco Survey among Youth (USA, 2015) conducted on a sample of 17,711 young respondents, they tested three levels of advertising exposure: none (respondent was not exposed to advertising), traditional advertising only for cigarettes and traditional advertising for classic and e-cigarettes. Exposure to traditional cigarette advertising (64.4% of respondents) and electronic cigarette advertising (38.7%) was very common. It was confirmed that exposure to any advertising significantly increases propensity to use tobacco products.

### *Information on adverse effects of tobacco consumption*

The Global Tobacco Use Survey (GATS) contains a set of questions on knowledge, attitudes and perceptions of tobacco use. Responses can be divided into three categories. The first category is about the consequences of tobacco use. The second category includes attitudes on the price of tobacco products, and the adoption and improvement of control policies. The third category includes the respondents' perception of the effectiveness of control policies aimed to reduce tobacco use. Table 1. presents the percentage distribution of respondents' responses on whether smoking can cause lung cancer, heart attack or stroke. Respondents were also asked about the harmful effects of involuntary exposure to tobacco smoke.

*Table 1. Attitudes on adverse effects of smoking - Global Adult Tobacco Survey, in %, 15 years and older*

	Year	Does smoking cause lung cancer?	Does smoking cause a heart attack?	Does smoking cause stroke?	Does inhaling tobacco smoke cause severe diseases
Greece	2013	96,3	91,2	76,6	84,9
Poland	2009	92,6	79,9	61,8	81,4
Romania	2011	98,3	90,0	89,2	94,2
Turkey	2016	96,0	94,0	82,0	96,0
Ukraine	2017	94,5	86,7	86,1	85,5

*Source: Center for Disease Control and Prevention, Global Tobacco Surveillance System Data (GTSS Data)*

The research showed that the majority of respondents are aware that smoking causes lung cancer. A slightly smaller number believe that smoking causes a heart attack, while the least of them are aware that smoking causes a stroke - in Poland only 61.6% of respondents gave an affirmative answer to this question. Adults in Turkey and Romania believe that inhaling tobacco smoke can have harmful consequences to health of those who are involuntarily exposed to it (96.0% and 94.2%, respectively), while only 81.4% in Poland answered positively.

In addition to GATS, it is important to review the research conducted in waves, using the same questionnaire in several countries. The ITC project currently covers 25 countries at different stages of research, depending on the time of accession. Like the GATS, the ITC

questionnaire contains a set of questions on understanding the harmful effects of tobacco use. In France, respondents are highly educated and 99.0% of respondents answered that they are familiar with the fact that smoking causes lung cancer and 91.0% that it causes lung cancer to non-smokers as well. (ITC France National Report, 2014). However, data from the ITC project in China, Australia, Bangladesh, Malaysia, France and Germany in 2010 indicate that smokers' knowledge of the harmful effects of involuntary exposure to tobacco smoke was very low (ITC, WHO and WHF, 2012). The percentage of smokers who did not know that tobacco smoke causes heart disease in non-smokers ranged from 55% in China to 24% of smokers in Mexico. In highly developed countries such as Canada, the United Kingdom or Australia, more than half of smokers did not know that tobacco smoke could be equally harmful and cause heart disease in non-smokers.

### *Cessation support*

Both the health and economic effects of increasing smoking cessation is important for improving social well-being. People who start smoking in early adulthood and quit before the age of 40 are more likely to reduce their risk of tobacco-related illnesses, as compared to people who quit smoking in the fifties. Jha and Peto (2014) investigated the global effects of smoking cessation. The results confirm that the relationship between former and current smokers in the middle ages is a useful measure of tobacco control success. Among people aged 45-64 in the European Union, the ratio of current to former smokers is about 1, while in low- and middle-income countries there are a significantly lower number of ex-smokers compared to the current ones. A significant number of deaths caused by tobacco use by 2050 can be reduced only by reducing the number of smokers if current smokers quit smoking in the near future (Jha, Peto, 2014).

Due to various factors, often happens that the decision to quit smoking is short-lived, and a person continues smoking again. With the rising choice of alternative products such as electronic cigarettes and non-combustible products, smokers quit smoking but continue consuming products that contain nicotine. Therefore, addiction is still present. In order to examine the link between the use of e-cigarettes and smoking cessation, extensive research using nationally representative samples and as many respondents as possible is needed. A survey conducted in the United States shows the latest results on the use of electronic cigarettes among smokers and ex-smokers. On the sample of 9,935 smokers and

14,754 ex-smokers, Konstantinos and Raymond estimated the prevalence of electronic cigarettes consumption, as well as the length of their use among ex-smokers (Konstantinos, Raymond, 2020). Among current smokers, e-cigarettes consume 10.5%, while 4.5% of ex-smokers confirmed that they used to consume e-cigarettes. The use of e-cigarettes and smoking cessation are not correlated if the influence of the control variable, which includes the effects of the time of smoking cessation, is excluded.

Tingum et al. (2020) confirmed that price and non-price measures are effective, both having a significant impact on consumption in the long run. One of the important contributions of their paper refers to the argument that there is a need for a simultaneous evaluation of price and non-price tobacco-control measures to reduce the bias associated with the price elasticity of demand for cigarettes. The demand price elasticity for tobacco products will be overestimated if there is a failure to control for non-pricing policies (Tingum et al. 2020). Tobacco control policies have been confirmed as cost-effective in different analysed contexts. As suggested by Ranson et al. (2002), there is no “one fits all” solution and local cost-effectiveness studies are required to guide local policy. Although tax measures proved to be the most effective, even conservative estimates suggest that implementation of other measures brings significant benefits, particularly in low- and medium-income countries (Ranson et al. 2002).

## **1. Non-price tobacco control policies in selected SEE countries**

The tobacco industry is one of the most regulated industries. However, analyzed SEE countries are still not obliged to apply strict EU tobacco control policies not being EU member states. This section provides details on the current state of non-price tobacco control policies in Albania, B&H, Montenegro, North Macedonia and Serbia.

As noted above, the tobacco control policy measures result in significant public health benefits. WHO estimates show the number of tobacco-related premature deaths which could be avoided through stricter implementation of the non-price tobacco control measures.

*Table 2. WHO projections on the effects of tobacco control policies on smoking prevalence and reduction of smoking-attributable deaths*

Country	Albania		Bosnia and Herzegovina		Montenegro		North Macedonia		Serbia	
	Change in smoking prevalence (in %)	Reduction in smoking-attributable deaths in 40 years	Change in smoking prevalence (in %)	Reduction in smoking-attributable deaths in 40 years	Change in smoking prevalence (in %)	Reduction in smoking-attributable deaths in 40 years	Change in smoking prevalence (in %)	Reduction in smoking-attributable deaths in 40 years	Change in smoking prevalence (in %)	Reduction in smoking-attributable deaths in 40 years
Protect through smoke-free laws	3.0%	7,753	6.1%	15,805	13.8%	6,833	6.5%	13,232	7.6%	60,930
Offer tobacco cessation services	6.3%	16,255	5.2%	13,337	11.5%	5,665	7.0%	14,241	5.1%	40,646
Mass media campaigns	6.6%	17,114	6.6%	16,969	6.6%	3,265	6.6%	13,401	6.6%	52,701
Warnings on cigarette packages	4.0%	10,372	6.0%	15,427	6.0%	2,968	4.0%	8,122	6.0%	47,909
Enforce marketing restrictions	3.3%	8,427	6.8%	17,380	5.2%	2,572	6.4%	12,935	6.8%	53,978
Raise cigarette taxes	32.7%	84,867	14.4%	37,027	20.2%	9,987	23.9%	48,596	21.3%	170,018
Combined policies	46.9%	121,706	37.6%	96,793	49.3%	24,390	44.5%	90,334	43.5%	347,464

Source: WHO Country Profile Reports, [https://www.who.int/tobacco/global\\_report/en/](https://www.who.int/tobacco/global_report/en/)

As presented in Table 2., there is a huge space for further tobacco control policy improvements. Among non-price policy measures, applying smoke-free policies could have the most significant results in Montenegro and Serbia reducing overall prevalence by 13.8% and 7.6% respectively. Tobacco cessation support would bring the best effects in Montenegro and North Macedonia, while enforcement of marketing restrictions would be particularly effective in Bosnia and Herzegovina and Serbia. In total, combined with raising taxes, applying effective non-price tobacco control policies would lower overall prevalence in the range from 37.6% (in Bosnia and Herzegovina) to 49.3% (in Montenegro). The total estimated number of deaths that could be avoided through combined tobacco control policies in five observed countries over the next 40 years amounts to around 700,000.

Table 3. presents an overview of the existence of bans on direct and indirect forms of advertising in selected countries. Among the observed types of direct marketing, in all countries there exists a ban on advertising on national and international television and radio, in national and international magazines and newspapers, and on billboards. The ban

of point-of-sale advertising is not implemented in B&H, Montenegro, and Serbia, while online advertising is not banned only in B&H. As long as the ban on direct marketing is uniform in all countries, the ban on indirect marketing differs significantly. There are no bans on the appearance of tobacco products in films or on television shows, as well as bans on financial sponsorships by the tobacco industry (Zubovic, et al. 2020).

Table 3. Bans on direct and indirect tobacco advertising products in selected SEE countries, 2018

	Albania	B & H	Mont	Zort	Serbi a
<b>Direct bans on marketing of tobacco products</b>					
National TV and radio	Yes	Yes	Yes	Yes	Yes
International TV and radio	Yes	Yes	Yes	Yes	Yes
National Newspapers and magazines	Yes	Yes	Yes	Yes	Yes
International journals and magazines	Yes	Yes	Yes	Yes	Yes
Billboards and other forms external advertising	Yes	Yes	Yes	Yes	Yes
Advertising at the point of sale	Yes	No	No	Yes	No
Internet advertising	Yes	No	Yes	Yes	Yes
Other forms of direct marketing	Yes	No	No	No	No
Overall assessment of direct marketing	10	8	7	10	8
<b>Ban on sponsorships and promotion of tobacco products</b>					
Free distribution	Yes	No	Yes	No	Yes
Promotion discounts	Yes	No	Yes	Yes	Yes
Other products containing brand or producer's logo	Yes	No	Yes	Yes	No
Logo of other products used on tobacco product packaging	Yes	No	Yes	No	No
Appearance of tobacco products in movies or television shows	Yes	No	No	No	No
Prohibition of sponsorship (financial)	No	No	No	No	No
Prohibition of sponsorship (public support or other forms)	Yes	No	Yes	No	No
Law on the explicit prohibition of displaying tobacco products at the point of sale	No	No	No	No	No
Other indirect prohibitions	No	No	No	No	No
Overall assessment of indirect prohibitions	8	5	5	8	4

Source: WHO Country Profile Reports, [https://www.who.int/tobacco/global\\_report/en/](https://www.who.int/tobacco/global_report/en/)

As presented in Table 3., according to marketing bans criteria, Serbia and Montenegro were ranked last. Data presented in Tobacco Control Scale 2019 report confirm that Serbia, although solid progress in conducting price tobacco control policies, has one of the weakest non-price tobacco control policies in Europe (Jossens et al. 2020). Among other European countries, in respect to tobacco advertising bans, Switzerland and Germany hold the last places, while the Nordic countries (Finland, Iceland and Norway) are considered European top performers.

In addition to sponsorship and promotion, indirect forms of marketing of the tobacco industry can also include loyalty programs, distribution of product samples, free distribution of certain brands of products. Tobacco industry sponsorships strengthen brand awareness and increase market share, so they often find ways to secure sponsorships for sports events, entertainment events, festivals, and other public events. Banning these types of marketing is extremely important, especially since the negative effects on the consciousness of young people are being reduced (Zubovic, et al. 2020).

*Table 4. Noticed sponsorship of events (sports, entertainment) by the tobacco industry in selected SEE countries, in percent*

Country	Yes	No
Albania	4,82	95,18
B&H	2,10	97,90
Montenegro	2,60	97,40
North Macedonia	0,97	99,03
Serbia	5,49	94,51

*Source: Zubović, J., Jovanović, O., Đukić, M., Jolović, N., & Vladisavljević, M. (2020). Study on Tobacco Consumption in Serbia, 2019. Institute of Economic Sciences, Belgrade, Serbia.*

Respondents answered the question about the sponsorship of public events by the tobacco industry in the last 6 months. According to the answers, most respondents noticed sponsorships in Serbia (5.49%) and Albania (4.82%), whereas the least number was observed in Northern Macedonia (0.97%).

The promotional activities of the tobacco industry, to strengthen the brand's position among consumers and the impact on consumption, are different, so their application in countries with different levels of development may depend on the socio-demographic characteristics of the

population. The regional survey - "Survey on Tobacco Consumption in SEE Countries - STC-SEE" collected responses to several common types of promotional activities in SEE countries. The results indicate that less than 10% of respondents noticed some of the promotional activities in the last six months. Respondents in Serbia (8.12%) mostly noticed special offers of other tobacco products, while respondents in Macedonia (6.51%) noticed special offers of cigarettes. Clothes or other types of gifts with the brand or tobacco company logo were the most frequently noticed by respondents from Albania (5.80%).

Price promotion of cigarettes or alternative tobacco products reduces the beneficial effects of tax policy created by increasing excise taxes. Discounts or special offers of cigarette packs/other tobacco products lower the sales price and violate the basic principles of tax policy, which, through the growth of sales prices, affects the consumer's awareness and decision to consume. From the aspect of health economics, the control of promotional activities is of equal importance as the creation of an adequate tax policy to achieve a common, positive, and synergistic effect on the demand for tobacco. This type of promotion is often combined with advertisements in a prominent place in the sales area in stores. Such announcements often contain a picture of the product and its promotional price. It is the special offers of prices and other products that are mostly noticed by respondents in the region, while the ban on point-of-sale advertising is implemented in 3 out of 6 countries.

Free samples of tobacco products are another form of sales promotion. The target group are young people, so free samples are often promoted in places such as nightclubs, bars, and concerts. It often happens that criteria for selecting visitors for special events are very clear - visitors can only be smokers. In Serbia, 50 respondents gave a positive answer about their perception of special events for smokers (2.5%), significantly higher if compared to other observed countries.

Lack of information on the harmful effects of tobacco use, exposure to tobacco smoke and nicotine addiction, can lead individuals consuming tobacco to ignore health risks but also underestimate their abilities to quit. The information gap can be filled in different ways. Dissemination of the results of scientific and professional (independent) research, as well as data-based recommendations, are being considered particularly important. Most research has been conducted in high-income countries, while low- and middle-income countries lack research on this topic. Awareness of harmful effects of tobacco in the observed SEE countries is extremely weak (Zubovic et al. 2020). Regarding health



warnings, Serbia has been ranked bottom of a table among 36 European countries (Jossens et al. 2020).

Supporting smoking cessation is an extremely important control instrument. The number of ex-smokers in the region would be significantly higher if there was strong and comprehensive systemic support for this social problem. The WHO monitors the existence of institutional support to smokers in the treatment of addiction for many countries. An overview is given in Table 5.

*Table 5. Treatment of tobacco addiction on December 31, 2018*

Activity		ALB	B&H	MNE	NMKD	SRB
Is there a free telephone line for providing counselling to people who are in the process of rehab, as well as the possibility of talking to a doctor?		No	No	No	No	No
Nicotine therapy sold legally (chewing gum, tablets, patch)		No	Yes	No	Yes	Yes
Drugs used during treatment (Bupropion), legal sale		No	Yes	No	Yes	Yes
Varenicline (a drug used in the treatment of tobacco dependence)		No	Yes	No	No	No
Is support for people being treated for tobacco addiction available in the following institutions?	Health centers	Yes, in some	No	No	No	Yes, in some
	Hospitals	No	No	No	Yes, in some	Yes, in some
	Private doctor's offices	No	No	No	Yes, in some	Yes, in some
	In the social community	No	No	No	No	No

*Source: WHO Global Tobacco Epidemic Report, 2019, for the countries: Albania, Bosnia and Herzegovina, Montenegro, Northern Macedonia and Serbia.*

There is no free telephone line for providing counselling to people who are in the process of quitting smoking, with a conversation with a psychologist or other expert in any of the observed countries in the region. A short conversation with a professional in moments when a smoking crisis occurs and the need for inhalation can help, because by reminding about health benefits, providing incentives and motivation, one influences an individual's behaviour. Nicotine replacement therapy with special chewing

gums, tablets or nicotine patches can be legally purchased in all pharmacies in Bosnia and Herzegovina, Northern Macedonia and Serbia. Moreover, in these countries is possible to legally buy drugs that are used for treatment (Bupropion). However, the expense of such therapies is still not covered by the state health insurance fund, which means that an individual must self finance its use.

### **Conclusions and policy recommendations**

Implementation of non-price tobacco control policies is extremely important for reducing tobacco consumption. Although the effectiveness of non-price policies is being confirmed by numerous research, it has been slowly incorporated into the legislative framework in many countries. The most important reasons for that could be found in the short-term orientation of the policy makers and lobbying of the powerful tobacco industry. Namely, benefits of efficient implementation of non-price policies result in long term benefits, particularly in terms of reducing damage caused by tobacco consumption. On the other hand, the tobacco industry invests significant resources aiming to challenge the evidence on positive effects of tobacco control. This paper outlines development of the public policies related to non-price tobacco control measures with a particular focus on Europe, and important research results which confirmed the effectiveness of non-price tobacco control policies in different policy contexts. It confirms that combined implementation of price and non-price tobacco control policies produces synergetic effects resulting in the most desirable social outcomes. One of the most important metrics developed for monitoring and research related to tobacco control policies is the Tobacco Control Scale developed by Jossens et al. (2006). It enables comparison of countries regarding different tobacco control policy aspects. However, among the observed SEE countries, Tobacco Control Scale provides information only for Serbia which makes comparisons between countries very difficult.

Data obtained through national surveys on tobacco consumption (Zubovic et al. 2019) suggest that non-price policies in the observed SEE countries have been insufficiently used tobacco control instrument. WHO estimates suggest that strict implementation of these policies could result in 700,000 tobacco-related premature deaths avoided during the next 40 years. Although there is a notable potential for enhancement of tobacco control policies in the observed SEE countries, there could be observed some differences. Overall assessment of marketing bans suggests that North Macedonia and Albania are better if compared to Serbia,

Montenegro, and B&H that still did not adopt bans on marketing at the point-of-sales. Survey results have shown that tobacco sponsorships are quite rare, but still present in the region. If compared to other European countries, all of the selected countries lag behind the EU considering health warning labels. According to Tobacco Control Scale, Serbia holds the last place in Europe according to health warnings criteria. The situation is similar with cessation support, another important tobacco control measure.

The most important policy recommendations related to better implementation of the non-price policy measures in the observed SEE countries are as follows:

- Introduce strict tobacco control policies as suggested under Article 4 of the WHO FCTC
- Establish an efficient system of monitoring and evaluation of tobacco control policies and monitoring progress in tobacco control as recommended by the Tobacco Control Scale mechanism
- Conduct regular research to provide evidence for improvement of the tobacco control policy
- Impose stricter bans on the marketing of tobacco products suspending advertising at the “point of sale” in particular
- Prohibit any form of tobacco industry sponsorships
- Solve information asymmetry with regards to consumption of tobacco products including providing health warning labels
- Provide systemic cessation support as suggested under Article 14 of the FCTC

**Acknowledgements.** This paper is a result of the research financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

## References

- Bisić, M., & Randelović, S. (2018). Cigarette excise tax policy in the Western Balkans: Trends, effects and challenges. *Ekonomika preduzeća*, 66(5-6), 320-332.
- Blecher E. (2008). The impact of tobacco advertising bans on consumption in developing countries. *J Health Econ.* 27(4), str. 930-942

- Congress, U. S. Federal (1965). *Cigarette labelling and advertising act of 1965*. Public law, 89-92.
- Congress, U. S. Federal (1970). *The Public Health Cigarette Smoking Act*,  
<https://web.archive.org/web/20080305012949/http://tobaccodocuments.org/atc/71066088.html>
- Doll, R., & Hill, A. B. (1950). Smoking and carcinoma of the lung. *British medical journal*, 2(4682), 739.
- Feliu, A., Fernández, E., Baena, A., Joossens, L., Peruga, A., Fu, M., & Martínez, C. (2020). The Tobacco Control Scale as a research tool to measure country-level tobacco control policy implementation. *Tobacco Induced Diseases*, 18.
- Friedman, L. C., Cheyne, A., Givelber, D., Gottlieb, M. A., & Daynard, R. A. (2015). Tobacco industry use of personal responsibility rhetoric in public relations and litigation: disguising freedom to blame as freedom of choice. *American Journal of Public Health*, 105(2), 250-260.
- Gilbert A, Cornuz J (2003). Which are the most effective and cost-effective interventions for tobacco control? Copenhagen, WHO Regional Office for Europe (Health Evidence Network report; <http://www.euro.who.int/document/e82993.pdf>)
- Gjika, A., Zhllima, E., Rama, K., & Imami, D. (2020). Analysis of tobacco price elasticity in albania using household level data. *International journal of environmental research and public health*, 17(2), 432.
- Gligorić, D., Pepić, A., Petković, S., Ateljević, J., & Vukojević, B. (2020). Price elasticity of demand for cigarettes in Bosnia and Herzegovina: microdata analysis. *Tobacco Control*, 29(Suppl 5), s304-s309.
- Jha P., Peto R. (2014). Global Effects of Smoking, of Quitting, and of Taxing Tobacco. *New England Journal of Medicine*. 370(1). str. 60 – 69.
- Joossens L, Feliu A, Fernandez E. (2020). The Tobacco Control Scale 2019 in Europe. Brussels: Association of European Cancer Leagues, Catalan Institute of Oncology; 2020. Available from: <http://www.tobaccocontrolscale.org/TCS2019.pdf>
- Joossens L, Raw M, (2006). The Tobacco Control Scale. A new scale to measure country activity, *Tobacco Control*, 2006; 15, 247-53
- Jovanovic, O., Zubović, J., Vladislavljević, M., Bodrož, D., Ljumović, I., Domazet, I., & Đukić, M. (2018). Estimation of tobacco products  
 DOI: 10.2478/9788366675261-045

- price and income elasticity using aggregate data. *Economic Analysis*, 51(3-4), 81-94.
- Konstantinos F., Raymond N. (2020). E-cigarettes and Smoking Cessation in the United States According to Frequency of E-cigarette Use and Quitting Duration: Analysis of the 2016 and 2017 National Health Interview Surveys, *Nicotine & Tobacco Research*, vol 22, no 5. str. 655–662
- Leão, T., Perelman, J., Clancy, L., Mlinarić, M., Kinnunen, J. M., Nuyts, P. A., ... & Kunst, A. E. (2020). Economic evaluation of five tobacco control policies across seven European countries. *Nicotine and Tobacco Research*, 22(7), 1202-1209.
- Leão, T., Perelman, J., Clancy, L., Mlinarić, M., Kinnunen, J. M., Nuyts, P. A., ... & Kunst, A. E. (2020). Economic evaluation of five tobacco control policies across seven European countries. *Nicotine and Tobacco Research*, 22(7), 1202-1209.
- Mikulić, D., & Buturac, G. (2020). In What Measure Is Public Finance Sustainability Threatened by Illicit Tobacco Trade: The Case of Western Balkan Countries. *Sustainability*, 12(1), 401.
- Mugosa, A., Cizmovic, M., Lakovic, T., & Popovic, M. (2020). Accelerating progress on effective tobacco tax policies in Montenegro. *Tobacco Control*, 29(Suppl 5), s293-s299.
- Musk, A. W., & De Klerk, N. H. (2003). History of tobacco and health. *Respirology*, 8(3), 286-290.
- Palali, A., & van Ours, J. C. (2019). The impact of tobacco control policies on smoking initiation in eleven European countries. *The European Journal of Health Economics*, 20(9), 1287-1301.
- Papaleontiou, L., Agaku, I. T., & Filippidis, F. T. (2020). Effects of exposure to tobacco and electronic cigarette advertisements on tobacco use: an analysis of the 2015 National Youth Tobacco Survey. *Journal of Adolescent Health*, 66(1), 64-71.
- Ranson, M. K., Jha, P., Chaloupka, F. J., & Nguyen, S. N. (2002). Global and regional estimates of the effectiveness and cost-effectiveness of price increases and other tobacco control policies. *Nicotine & Tobacco Research*, 4(3), 311-319.
- Recher, V. (2020). Illegal tobacco demand: The case of Western Balkan. *Economic Analysis and Policy*, 66, 182-193.
- Saffer H., Chaloupka F. (2000). The effects of Tobacco Advertising Bans on Tobacco Consumption. *J Health Econ.* 19(6). str. 1117 – 1137
- Tingum, E. N., Mukong, A. K., & Mdege, N. (2020). The effects of price

- and non-price policies on cigarette consumption in South Africa. *Tobacco induced diseases*, 18.
- Vardavas, C. I., Bécuwe, N., Demjén, T., Fernández, E., McNeill, A., Mons, U. ... Consortium, O. B. O. T. E. (2018). Evaluating the European Union (EU) Tobacco Products Directive: Findings from the EUREST-PLUS ITC cohort study among six EU Member States (MS). *Tobacco Induced Diseases*, 16(3), 42. <https://doi.org/10.18332/tid/95140>
- Vladislavljevic, M., Zubović, J., Đukić, M., & Jovanović, O. (2020). Tobacco price elasticity in Serbia: evidence from a middle-income country with high prevalence and low tobacco prices. *Tobacco control*, 29(Suppl 5), s331-s336.
- Willemsen, M. C. (2018). *Tobacco control policy in the Netherlands: between economy, public health, and ideology*. Springer.
- World Health Organization. (2002). *European strategy for tobacco control* (No. EUR/02/5041354). Copenhagen: WHO Regional Office for Europe.
- Yach, D., & Bettcher, D. (2000). Globalisation of tobacco industry influence and new global responses. *Tobacco control*, 9(2), 206-216.
- Zubović, J., Đukić, M., & Jovanović, O. (2020). Ekonomski aspekti kontrole duvana i empirijski nalazi u Srbiji. Institute of Economic Sciences
- Zubović, J., Jovanović, O., Đukić, M., Jolović, N., & Vladislavljević, M. (2020). Study on Tobacco Consumption in Serbia, 2019. Institute of Economic Sciences, Belgrade, Serbia.
- Zubović, J., Vladislavljević M., Đukić, M., Jovanović, O., Jolović, N., (2019) Survey on Tobacco Consumption in SEE countries (STC – SEE), Institute of Economic Sciences, Belgrade, Serbia, <http://tobaccotaxation.org/index.php>